

PATENT SPECIFICATION

486,779



Application Date : May 3, 1937.

No. 12541/37.

Complete Specification Accepted : June 10, 1938.

COMPLETE SPECIFICATION

An Illumination Arrangement for Motor Vehicles

I, CHRISTIAN PRELL, a citizen of the Czechoslovakian Republic, of 1956, Postberg, Asch, Czechoslovakia, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

It is well known that the cone of light rays of the headlights of motor vehicles produces a very annoying dazzling, so that the view of the driver of an approaching vehicle is practically lost. Therefore when a vehicle is approaching it is customary to darken the headlights, in order to prevent the annoying dazzling. However this has the drawback, that the sides of the road or street remain in complete darkness, so that the driver cannot inform himself with respect to the condition and free space of the road at the side of the approaching vehicle and the driver has a feeling of insecurity.

It has been proposed to provide motor vehicles with an additional lamp which comes into operation when the headlights are switched off and which is mounted on the off-side of the vehicle, immediately in front of and below the lower edge of the windscreen, so as to throw a flood-light forwards, rearwards and downwards to illuminate the off-side only of the vehicle, and the part of the roadway in front of and behind the vehicle at that side, the reflector of the lamp being so positioned as to prevent stray rays from meeting the eyes of the driver of an oncoming vehicle. It has also been proposed to provide auxiliary lamps on one or both sides of the vehicle between the windscreen and the rear end of the vehicle, having a semi-cylindrical screen with a reflecting inner surface so arranged as to reflect the light fore and aft of the vehicle body and downwards and illuminate substantially the whole of the respective sides of the vehicle and the road at the side of the vehicle situated behind the headlights, the said screen cutting off lateral rays from the lamp above the level of the bulb in order to prevent such rays from inconveniencing pedestrians at the side of the road on a

level with the vehicle or drivers of passing vehicles. In this proposal, however, the whole of the lower half of the lamp bulb is situated below the level of the screen. It has also been proposed to provide on one or both sides of a motor vehicle, substantially in the same plane as the headlights, an auxiliary lamp having its source of light concealed by means of a reflector casing in such a manner that it cannot be seen by the driver of a meeting vehicle or passing pedestrians, the arrangement being such that the axis of the beam of light projected by the auxiliary lamp is directed at an angle less than 90° to and below the horizontal plane and the angle of divergence of the beam in the horizontal direction is about 140°.

The present invention consists in the provision on both sides of the vehicle of preferably weak searchlights, which are provided with screening means which enclose and completely conceal the source of light in such a manner that it is completely invisible, the source of light and its screening means being directed in such a manner that the cone of rays from the source of light acts vertically downwards.

The invention is illustrated by way of example in the accompanying drawings, in which Fig. 1 is a side view of the off-side of the vehicle showing the off-side lateral searchlight; Fig. 2 shows diagrammatically the illumination of the road by two approaching motor cars provided with lateral searchlights, and Fig. 3 illustrates the diagram of electrical connections of the headlights and lateral searchlights.

Referring to the drawings, the vehicle is provided with the headlights H and in addition thereto with two lateral searchlights S secured to the side walls of the motor car. As shown in Fig. 1, each lateral searchlight S is screened by means of a curved reflector T in such a manner that the source of light is completely invisible to pedestrians, the cone of rays emitted acting vertically downwards so as to illuminate the lower parts of the vehicle, the foot board, the mudguards and especially the part of the road or street at the side of the vehicle. As shown in Fig. 3, the lateral searchlights

S are connected in the circuit of the headlights H and all lamps are operated by a common switch c in such manner that, when subduing the headlights H, the lateral searchlights S are switched on. The searchlights S are switched off automatically if the headlights H are switched on again to full light. B designates the battery. If two cars, furnished with searchlights according to the present invention, are meeting on an unilluminated country road, the latter is illuminated in the manner shown in Fig. 2, whereby however the searchlights H are subdued. It is readily seen, that each driver illuminates the part of the road at the side of his car, so that a collision or knocking down of pedestrians is rendered impossible owing to absurd illumination. In view of the downwardly directed searchlights, the approaching motor car drivers, motor-cyclists, cyclists, pedestrians and the drivers of following motor vehicles are not dazzled in any way. Having now particularly described and ascertained the nature of my said inven-

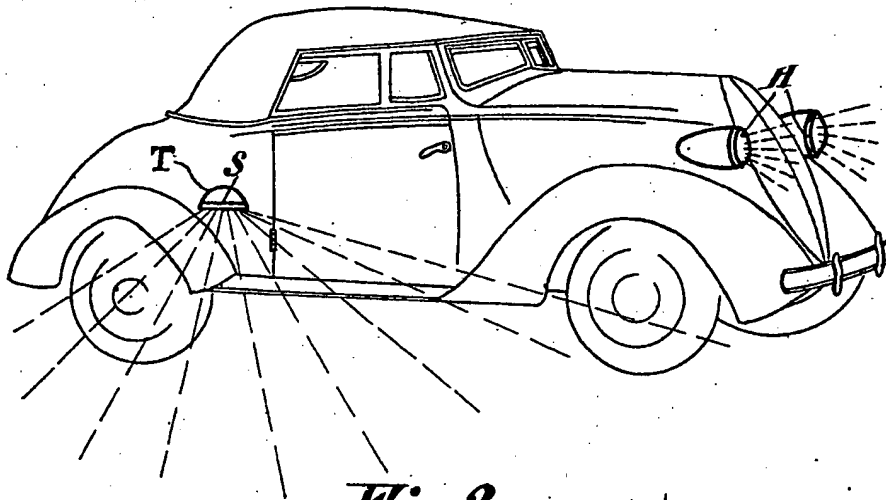
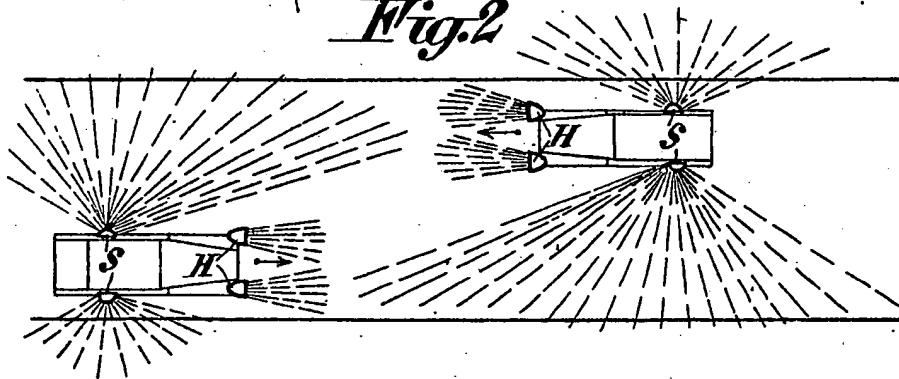
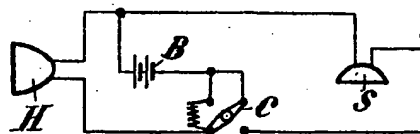
tion and in what manner the same is to be performed, I declare that what I claim is:—

1. An illumination arrangement for motor vehicles having forwardly directed headlights and preferably weak lateral searchlights which are arranged at both sides of the vehicle and are switched on automatically when subduing or extinguishing the headlights by means of a switch, characterised by the feature that the lateral searchlights are provided with screening means which enclose and completely conceal the source of light in such a manner that it is completely invisible. the source of light and its screening means being directed in such a manner that the cone of rays from the source of light acts vertically downwards.

2. An illumination arrangement for motor vehicles substantially as described with reference to the accompanying drawing.

Dated the 3rd day of May, 1937.

MARKS & CLERK.

Fig.1*Fig.2**Fig.3*

Malby & Sons, Photo - Lith